APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,772	11/03/2003	Roy S. Berns	MIPFP062	6341

25920   7590   08/02/2007
MARTINE PENILLA & GENCARELLA, LLP
710 LAKEWAY DRIVE
SUITE 200
SUNNYVALE, CA 94085

EXAMINER
KRASNIC, BERNARD

ART UNIT	PAPER NUMBER
2624	

MAIL DATE	DELIVERY MODE
08/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
	10/700,772	BERNS ET AL.
Office Action Summary	Examiner	Art Unit	
	Bernard Krasnic	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>21 May 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-12</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-12</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   The amendment filed 5/21/2007 have been entered and made of record.

2.   In response to the amendments filed on 5/21/2007:

The "Objections to the drawings" have been entered and therefore the Examiner

withdraws the objections to the specification.

The "Objections to the specification" have been entered and therefore the

Examiner withdraws the objections to the specification.

The "Objections to the claims" have been entered, and therefore the Examiner

withdraws the objections to the claims.

3.   Applicant's arguments with respect to claims 1-4, 6-9, 11, and 12 have been

considered but are moot in view of the new ground(s) of rejection.

4.   Applicant's arguments filed 5/21/2007 have been fully considered but they are

not persuasive.

The Applicant alleges, "The Takahashi reference discloses a method ..." in page

13, and states respectively that the amended limitation "and the color difference index

not being calculated from differences in the spectral reflectance of the sample color and

the comparative color but rather being calculated from differences in colorimetric values

of the sample color and the comparative color" to claim 1 is neither taught nor

suggested in the Takahashi reference. However the Examiner disagrees because

Takahashi clearly states [see Takahashi, col. 7, lines 1-5, Fig. 12] that the color

difference index may be calculated by taking the color difference between the data on

the two L*a*b areas [L*a*b as disclosed in the Applicants specification in page 22 lines

23-24 may be the colorimetric values] instead of using the spectral reflectance's to

calculate the color difference index. Therefore independent claim 1 and dependent

claims 2-4 are still not in condition for allowance.

The Applicant alleges, "Applicants have amended independent claims 6, 11, and

12 ..." in page 13, and states respectively that the Applicants arguments set forth for

claim 1 also apply to claims 6, 11, and 12. However the Examiner disagrees because

just as the Examiner discussed and showed that Takahashi does disclose the amended

limitation to claim 1, the same arguments as discussed above are also applied to claims

6, 11, and 12. Therefore independent claims 6, 11 and 12, and dependent claims 7-9

are still not in condition for allowance.

The Applicant alleges, "Shifting now to independent claim 5 ..." in pages 13-14,

"Further, the cited reference do not ..." in page 14, and "For at least the foregoing

reasons ..." in page 14, and states respectively firstly that the limitation "colorimetric

value" refers to for example a CIEL*a*b value or a CIEXYZ value and secondly that the

Arai and Takahashi references alone or in combination do not disclose or suggest either

of the first and second converters that receive colorimetric value data and output ink

amount data, do not disclose or suggest a selector that selects one of the first and

second converters for use by an image processor, and therefore that independent claim

5 is condition for allowance. However the Examiner disagrees firstly because, in

response to applicant's argument that the references fail to show certain features of

applicant's invention, it is noted that the features upon which applicant relies (i.e.,

CIEL*a*b value and CIEXYZ value) are not recited in the rejected claim(s). Although

the claims are interpreted in light of the specification, limitations from the specification

are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057

(Fed. Cir. 1993). The Examiner disagrees secondly because Arai in view of Takahashi

does disclose the limitations as recited in claim 5. Arai discloses that each of the first

and second converters receive colorimetric or color values such as CMY [see Arai, col.

3, lines 13-21, col. 27-28], and each converter is used to convert these colorimetric

values to spectral reflectance's or corresponding CIE L*a*b values [see Arai, col. 3,

lines 13-21 and 56-58], and these spectral reflectance's or CIE L*a*b output data are

used by each converter to help reproduce an output printed image data where the same

output printed amounts are viewed to be substantially equal to each other under two

different viewing illuminant conditions [see Arai, col. 2, lines 38-45, col. 1, lines 60-61,

Arai's process is used to prevent the printed image to look unnatural by making sure

that the same color amounts match when viewed under different illuminants]. The

Takahashi reference was used to further specify a *"virtual sample patch"* with same

color amounts would be viewed to be substantially equal to each other under two

different viewing illuminant conditions [see Takahashi, abstract, lines 14-18]. Arai also

discloses the selector for selecting one of the first and second converters along with the

image processor by using an optimization means represented by the third converter and

the memory where the optimization means obtains the output from the first and second

converters and uses or selects the specific converter's output which minimizes the

square error and minimizes the average color difference by use of neural networks to

produce the output printed image data [see col. 3, lines 22-28]. Therefore Arai in view

of Takahashi does disclose the claimed limitations as recited in claim 5. Accordingly,

independent claims 5 and 10 are not in condition for allowance.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arai

et al (US 5,929,906, as applied in prior Office Action), and further in view of Takahashi

et al (US 6,987,567, as applied in prior Office Action).

Arai, as recited in claim 1, discloses an apparatus (20, 50) for performing color

conversion / color correcting with reference to a profile / parameters or connection

weights (24, 55) defining correspondence between colorimetric value data and ink

amount data (see Figs. 1 and 10, title, col. 6, lines 36-40, col. 5, lines 47-54, col. 13,

lines 10-19), comprising a profile memory (24, 55) (see Figs. 1 and 10) for storing a

plurality of profiles, a color converter / conversion portion (53, 54) for selecting one of

the plurality of profiles and for converting given colorimetric data into ink amount data

with reference to the selected profile (see Fig. 10, col. 11, lines 32-43, col. 13, lines 10-19).

Arai, as recited in claim 3, discloses the color converter / conversion portion (53, 54) receives selection of one of the printing conditions / usable illuminants (see Fig. 10, col. 6, lines 36-40, the profile memory gives the color converter printing conditions such as usable illuminants, col. 11, lines 44-50, the usable illuminants being the daylight illuminant and the designated illuminant).

Arai, as recited in claim 4, the plurality of profiles / usable illuminants are associated with plural types of images / daylight and designated illuminant images to be reproduced by the ink amount data, and the color converter / conversion portion (53, 54) receives selection / from profile memory (55) of one of the plural types of images, and selects the profile associated with the selected image type (see Fig. 10, col. 11, lines 44-50, col. 13, lines 32-40).

Arai, as recited in claim 5, discloses an apparatus (20, 50) for converting colorimetric value data / color correcting unit (20, 50) into ink amount data (see Figs. 1 and 10, Abstract, col. 3, lines 9-28), comprising a first converter / converter portion (53, 54) for receiving colorimetric value data and outputting ink amount data such that two colorimetric values of a virtual sample patch to be printed with the same ink amounts represented by the ink amount data under two different viewing conditions / usable illuminants (see Fig. 10, col. 6, lines 36-40, the profile memory gives the color converter printing conditions such as usable illuminants, col. 11, lines 44-50, the usable illuminants being the daylight illuminant and the designated illuminant, colorimetric

values are Arai's CMY color values) are substantially equal to each other (col. 2, lines
38-45, col. 1, lines 60-61, Arai's converters are used to prevent the printed image to
look unnatural by making sure that the same color amounts match when viewed under
different illuminants); a second converter / converter portion (53, 54) for receiving
colorimetric value data and outputting ink amount data such that the ink amounts
represented by the ink amount data substantially reproduces spectral reflectance
associated with the received colorimetric value (see Fig. 10, Abstract, col. 3, lines 9-28
and 45-60, col. 3, lines 13-21 and 56-58, Arai's converters are used to convert these
colorimetric values to spectral reflectance's or corresponding CIE L*a*b values); a
selector / profile memory (24, 55) for selecting one of the first and second converters
(see Figs. 1 and 10, col. 3, lines 9-28 and 45-60, col. 6, lines 36-40, the profile memory
controls the weights of the neural network which essentially tell the converters what to
process, col. 3, lines 22-28, an optimization means represented by the third converter
and the memory where the optimization means obtains the output from the first and
second converters and uses or selects the specific converter's output which minimizes
the square error and minimizes the average color difference by use of neural networks
to produce the output printed image data); and an image processor / color correcting
unit (20, 50) for converting given colorimetric value data into ink amount data using the
selected converter (see Figs. 1 and 10, Abstract, col. 3, lines 9-28).

Arai, <u>as recited in claim 12</u>, discloses an apparatus (20, 50) for producing a
profile / parameters or connection weights (24, 55) defining correspondence between
colorimetric value data and ink amount data representing a set of ink amounts of plural

inks / CMY, CMYK, or RGB usable by a printer (see Figs. 1 and 10, title, col. 6, lines 36-40 and 45-59, col. 5, lines 47-54, col. 13, lines 10-19), comprising a spectral printing model converter / conversion portion (53, 54) (see Fig. 10, col. 3, lines 9-28), and a profile generator / profile memory (24, 55) producing a profile defining correspondence between colorimetric value data and ink amount data based on the selected plural sample ink amount data (see Figs. 1 and 10, title, col. 6, lines 36-40 and 45-59, col. 5, lines 47-54, col. 13, lines 10-19).

However, Arai fails to disclose or fairly suggest, as recited in claim 1, that each profile being produced using plural sample ink amount data selected based on an evaluation index including a color difference index and an image quality index. Arai also fails to disclose or fairly suggest, as recited in claim 2, that the color difference index and the image quality index includes plural types of indices, and the color converter receives user selection of the color difference index and the image quality index. Arai also fails to disclose or fairly suggest, as recited in claim 3, that the color difference index and the image quality index are associated with plural types of printing conditions. Arai also fails to disclose or fairly suggest, as recited in claim 5, that the colorimetric value data of a virtual sample patch under two different viewing conditions are substantially equal. Arai also fails to disclose or fairly suggest, as recited in claim 12, a spectral printing model converter for a color patch, a selector for selecting one of a plurality of color difference and image quality indices, a calculator for calculating a color difference and an evaluation index, and a selector based on the evaluation index.

Takahashi, <u>as recited in claim 1</u>, discloses that each profile being produced using plural sample ink amount data selected based on an evaluation index / evaluation calculator (11) including a color difference index / difference calculator (8) and an image quality index / target color spectral data (5), the color difference index representing a color difference between a sample color / target color spectral data which is calculated from spectral reflectance of a virtual sample patch / target color to be printed with ink amounts represented by the sample ink amount data and a comparative color / compare color which is selected as a basis for comparison / color matching (6), the image quality index / target color spectral data representing image quality of the virtual sample patch / target color, the evaluation index for the plurality of profiles being defined to have different functional forms (see Fig. 1, Abstract, col. 5, lines 57-58), and the color difference index not being calculated from differences in the spectral reflectance of the sample color and the comparative color but rather being calculated from differences in colorimetric values of the sample color and comparative color (see col. 7, lines 1-5, Fig. 12).

Takahashi, <u>as recited in claim 2</u>, discloses the color difference index / difference calculator (8) includes plural types of available color difference indices (see Fig. 1, Abstract, respective frequencies in the spectrum), and the image quality index / target color spectral data includes plural types of available image quality indices (see Abstract, respective frequencies in the spectrum), and the color converter (taught by Arai in claim 1 above) receives user selection of the color difference index and the image quality index (see col. 6, lines 22-25 and 36-39, the color difference index is received through

user selection because both the target and evaluation spectral data are received by the users instructions and the difference is made from these two elements making the difference index essentially user selected), and selects the profile produced using the evaluation index including the selected color difference index and the selected image quality index (the profile essentially is the evaluation index or value produced by the user selected color difference index).

Takahashi, as recited in claim 3, discloses the color difference index / difference calculator (8) and the image quality index / target color spectral data has plural available types that are associated with a plurality of printing conditions / usable illuminants (9, S501) (see Figs. 1 and 5, Abstract, col. 6, lines 22-35, the plural available printing conditions are the usable illuminants produced by the light source, col. 8, lines 1-16), and the color converter receives selection of one of the printing conditions (the converter receives the profile being the evaluation index under the usable illuminants), and selects the profile (the profile essentially is the evaluation index or value) produced using the evaluation index / evaluation calculator (11) including proper types of the color difference index / difference calculator (8) and the image quality index / target color spectral data associated with the selected printing condition / usable illuminants (see Fig. 1).

Takahashi, as recited in claim 5, discloses a virtual sample patch / target color to be printed with the same ink amounts represented by the ink amount data under two different viewing conditions / usable illuminants (9, S501) are substantially equal to each other (see Figs. 1 and 5, Abstract, lines 14-18, col. 6, lines 22-35, the different viewing

conditions are the usable illuminants produced by the light source and they could be substantially equal if the user enters appropriate light source information, col. 8, lines 1-16).

Takahashi, as recited in claim 12, discloses a spectral printing model converter / spectral error evaluation apparatus (1, 2) for converting ink amount data to spectral reflectance of a color patch / evaluation color to be printed according to the ink amount data, the spectral printing model converter converting each of a plurality of sample ink amount data into spectral reflectance of a virtual sample patch / target color to be printed with the ink amounts represented by the sample ink amount data; a selector / evaluation value calculator for selecting one of a plurality (see Fig. 1, Abstract, respective frequencies in the spectrum) of color difference indices / difference calculator (8) and one or more of a plurality (see Fig. 1, Abstract, respective frequencies in the spectrum) of image quality indices / target color spectral data (5), each color difference index representing a color difference between a sample color / target color which is calculated from the spectral reflectance and a comparative color / compare color which is selected as a basis for comparison / color matching (6), each image quality index / target color spectral data representing image quality of the virtual sample patch / target color to be printed according to the sample ink amount data, and each color difference index not being calculated from differences in the spectral reflectance of the sample color and the comparative color but rather being calculated from differences in colorimetric values of the sample color and the comparative color (see col. 7, lines 1-5, Fig. 12); a calculator / difference calculator (8) for calculating values of the selected

color difference index and the selected image quality index for the plurality of sample ink amount data; a calculator / evaluation value calculator (11) for calculating an evaluation index using the values of the selected color difference index and the selected image quality index for the plurality of sample ink amount data; a selector / (Arai's conversion portion selects from Arai's profile memory a profile which is essentially Takahashi's evaluation value) for selecting plural sample ink amount data based on the evaluation index (see Fig. 1, Abstract, col. 5, lines 57-58).

Therefore, in view of Takahashi, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Arai's color correcting method and apparatus by including the capabilities of having the evaluation index as part of the profile, allowing the user selection of the color difference, having the color difference index and the image quality index to be associated with plural viewing conditions, having the colorimetric value data of a virtual sample patch under two different viewing conditions being substantially equal, having a spectral printing model converter with the two calculators in Arai's conversion portions, in order to further enhance the efficiency of the entire conversion by improving the precision and accuracy through evaluation means.

As to claim 6, it differs from claim 1 in that claim 1 is an apparatus claim whereas claim 6 is a method claim. Therefore, all the limitations in claim 6 are respectively analyzed and taught by Arai in view of Takahashi in the same manner Arai in view of Takahashi taught the limitations in claim 1 above.

As to claim 7, it differs from claim 2 in that claim 2 is an apparatus claim whereas claim 7 is a method claim. Therefore, all the limitations in claim 7 are respectively analyzed and taught by Arai in view of Takahashi in the same manner Arai in view of Takahashi taught the limitations in claim 2 above.

As to claim 8, it differs from claim 3 in that claim 3 is an apparatus claim whereas claim 8 is a method claim. Therefore, all the limitations in claim 8 are respectively analyzed and taught by Arai in view of Takahashi in the same manner Arai in view of Takahashi taught the limitations in claim 3 above.

As to claim 9, it differs from claim 4 in that claim 4 is an apparatus claim whereas claim 9 is a method claim. Therefore, all the limitations in claim 9 are respectively analyzed and taught by Arai in view of Takahashi in the same manner Arai in view of Takahashi taught the limitations in claim 4 above.

As to claim 10, it differs from claim 5 in that claim 5 is an apparatus claim whereas claim 10 is a method claim. Therefore, all the limitations in claim 10 are respectively analyzed and taught by Arai in view of Takahashi in the same manner Arai in view of Takahashi taught the limitations in claim 5 above.

As to claim 11, it differs from claim 12 in that claim 12 is an apparatus claim whereas claim 11 is a method claim. Therefore, all the limitations in claim 11 are respectively analyzed and taught by Arai in view of Takahashi in the same manner Arai in view of Takahashi taught the limitations in claim 12 above.

Provisional Obviousness-Type Double Patenting Rejection

7.   The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees.   A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

      A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

      Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8.   Claims 11 and 12 are provisionally rejected on the ground of nonstatutory

obviousness-type double patenting as being unpatentable over claim 1 of copending

Application No. 10/700,658 in view of Takahashi et al (US 6,987,567 B2). Although the

conflicting claims are not identical, they are not patentably distinct from each other

because the present claimed invention obviously encompasses the claimed invention of

'658 Patent Application and differ only in the terminology.

      For instance, in claims 11 and 12 of present claimed invention, the Applicant

recites: "A method of producing a profile defining correspondence between colorimetric

value data and ink amount data representing a set of ink amounts of plural inks usable

by a printer comprising (a) providing a spectral printing model converter ..., (b) providing

a plurality of sample in amount data ..., (c) converting each sample ink amount data ...,

(d) selecting one of a plurality of color difference indices ..., (e) calculating values of the

selected color difference index ..., (f) calculating an evaluation index ..., (g) selecting

plural sample ink amount data based on the evaluation index, and (h) producing a

profile ..." in claim 1 and "An apparatus for producing a profile defining correspondence

between colorimetric value data and ink amount data representing a set of ink amounts

of plural inks usable by a printer comprising a spectral printing model converter ..., a

selector for selecting one of a plurality of color difference indices ..., a calculator for

calculating values of the selected color difference index ..., a calculator for calculating

an evaluation index ..., a selector fore selecting plural sample ink amount data ..., and a

profile generator producing a profile defining correspondence ..." in claim 12.

Whereas, in claim 1 of '658 Patent Application, the Applicants claim: "A method

of producing a profile defining correspondence between calorimetric value data and ink

amount data representing a set of ink amounts of plural inks usable by a printer

comprising (a) providing a spectral printing model converter ..., (b) providing a plurality

of sample ink amount data ..., (c) converting each sample ink amount data ..., (d)

calculating an evaluation index ..., (e) selecting plural sample ink amount data ..., (f)

producing a profile ...".

Accordingly, in respect to above discussions, it would have been obvious to one

of ordinary skill in the art at the time the invention was made to use the teachings of

claim 1 of '658 Patent Application as a general teachings for a method and an

apparatus for producing a profile defining correspondence between colorimetric value

data and ink amount data as claimed by the present application. The instant claims obviously encompass the claimed invention of '658 Patent Application.

However, claim 1 of '658 Patent Application fails to disclose or fairly suggest and each color difference index not being calculated from differences in the spectral reflectance of the sample color and the comparative color but rather being calculated from differences in colorimetric values of the sample color and the comparative color.

Takahashi discloses each color difference index not being calculated from differences in the spectral reflectance of the sample color and the comparative color but rather being calculated from differences in colorimetric values of the sample color and the comparative color (see Takahashi, col. 7, lines 1-5, Figs. 1 and 12).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify '658 using Takahashi's teachings by including to '658's color difference index calculator the means to calculate the difference by using the colorimetric values instead of spectral reflectance values in order to further enhance the efficiency of the entire conversion by improving the precision and accuracy through evaluation means.

This is a <u>provisional</u> obviousness-type double patenting rejection.

Conclusion

9.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

10.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Bernard Krasnic whose telephone number is (571) 270-

1357. The examiner can normally be reached on Mon-Thur 8:00am-4:00pm and every

other Friday 8:00am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Jingge Wu can be reached on (571) 272-7429. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bernard Krasnic
July 24, 2007

JINGGE WU
SUPERVISORY PATENT EXAMINER